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SHOW ROOMS, PACKARD MOTOR CAR CO., DETROIT. Albert Kahn, Architect.

IMPRESSIONS OF THREE CITIES

BY AYMAR EMBURY II

II. DETROIT

DETROIT is essentially a city in the transition stage, and the processes through which its transformation is being wrought are very plainly visible. It was, I suppose, ten years ago, a city undistinguishable from most of the other middle western towns, built of red brick except for its public buildings. It must have been differentiated from most of the cities of its size in the old Northwest Territory by its delightful situation on the gently sloping hills of a river bank; today it differs in appearance from any of the other manufacturing cities I have seen, in its cleanliness, smartness and generally bright and cheerful air. A good part of the old buildings still remain, the old plan has not been materially altered, and sad to relate in a city of automobiles there is still a very considerable amount of Belgian block upon the streets. But the older structures are gradually being superseded by modern office and business buildings, and the enormous factories which fringe Detroit are of the most modern and excellent style. In a general sort of way the city rambles along the water front from the Union station at one end of the town, to Grosse Pointe Farms (where most of the handsome new residences have been built) at the other. The railroad station, by the way, deserves a word to itself: it is handsome, spacious enough for two cities like Detroit, extremely well planned, and remote from the business district, so that from the center of the town as represented by the irregular square around which the opera house, several of the big office buildings, the Ponchartrain Hotel and the city hall, are grouped, one may enjoy a long ride in the street cars for a nickel, or $2.00 worth of taxi cab fare, for in Detroit the taxi cabs are very expensive luxuries.

The plan of the city is rather interesting; based on the typical gridiron with such variations as are necessary to follow the river bank, a sort of civic center has been established with Woodward Avenue as an axis, the center terminating at the Grand Circus (a semi-circular park) at one end and at the City Hall Square, known as the "Campus Martius," at the other. From the latter diagonal streets radiate to the outskirts of the city and as the streets running into the Grand Circus are radiant to it for distances varying from two to five blocks where they join the gridiron, the plan is extremely convenient, although very confusing until you know your way about.

Detroit is proud of its system of traffic regulation, but the way in which it permits automobiles to stand about the streets makes the problem much more difficult, and the aspect of a city whose streets are fully tenanted by deserted

HOUSE, S. K. PITTMAN, DETROIT, Chas. M. Baker, Architect.

motor cars suggests a country village on market day when the market men are off to lunch.

The necessity of skyscrapers is questionable anywhere, and in a city like Detroit their construction is, of course, entirely due to the desire on the part of their owners to have the highest building in the city, and when one finds a city pointing with pride to its tall buildings (as is almost invariably the case even where the tallest building is only eight stories), one realizes that it is due to mistaken civic pride. There is no real reason in Detroit, for example, for a skyscraper; even the most important of her streets, Woodward Avenue between the City Hall and the Grand Circus is by no means completely built up and the price of land cannot anywhere be so great that the expense of a skyscraper was warranted. Nevertheless since New York and Chicago have built skyscrapers, which even in New York hardly pay reasonable interest on the money invested in them, every other city in the United States thinks to show its bigness and importance by doing likewise, and just as in New York they point out the Woolworth Building, the tallest office building in the world, so in Detroit they point out the Dime Bank Building "the tallest building between New York and Chicago." If the skyscraper problem had been successfully solved such buildings might be monuments of beauty; one or two of them in a city might add to its picturesqueness, but when you get eight or ten or a dozen of them, of various heights and various styles of architecture scattered about in such a way that they form neither a group nor a composition, they only detract from the appearance of the city as a whole, and the unfinished faces which abut on adjoining property are, in a city of low buildings, even more unpleasant than in New York and Chicago.

Of the tallest buildings in Detroit perhaps the most interesting is the Kresge Building, which is something more than a façade, since the rear and sides have been designed, if not quite so well as the front, at least passably, and the real problem in every skyscraper, namely, how to stop it, has been met in an unusual and interesting manner.

One of the smaller of the tall buildings, the building for Gregory, Mayor & Thom, has a very good façade, as may be seen from the illustration, but the absolute lack of relation between this façade and the side wall (which is far more conspicuous from the city center than the front), is rather depressing. The two best buildings in the center of Detroit, namely, the new Statler Hotel, designed by George B. Post & Sons, and the Detroit Athletic Club, designed by Albert Kahn, are exceptionally fine

A TYPICAL DETROIT LOFT BUILDING.

HOUSE, J. BROOKS NICHOLS, GROSSE POINTE, DETROIT.
Chittenden & Kotting, Architects.

structures. The Statler Hotel was evidently designed with one eye on the Ritz-Carlton in New York, and is in some ways more agreeable than its proto-type, while the Detroit Athletic Club Building, designed in a very interesting Italianate manner, is a distinguished and notable piece of architecture.

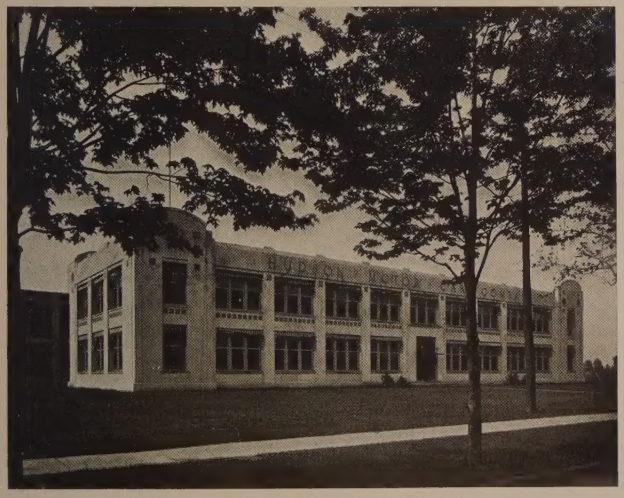
Of the lower buildings, the office building of the Detroit Fire & Marine Insurance Company, designed by George Mason, is a most agreeable two story structure of conventional bank type, well detailed and well composed. They seem much more appropriate to the city than the tall buildings do.

It will be seen from these illustrations that the business buildings of the city are by no means devoid of merit or

FIRE AND MARINE INS. BLDG., DETROIT. Geo. Mason, Architect.

interest, and beside the few I have named, there are a number of others which make their acquaintance worth while, including one or two extremely attractive office buildings constructed in the period of the Greek Revival, which, were the city to be done all over again, might well be taken for the key note of the new work.

Nevertheless when you ask the Detroit men to show you the interesting things of the city, they at once take you out to the big automobile factories, and to the very delightful suburbs of Birmingham and Grosse Pointe Farms. Emerging from closely built up parts of the city one comes to the factories, spick and span in their newness, absolutely commercial in design, and yet with such a clever air of practicability and cleanliness and comfort and efficiency, that there is, after all, something beautiful about them. Those I liked best were the office building of the Hudson factory, and the little city salesroom of the Packard Company, the latter being an interesting combination of concrete piers supporting glass and steel, with a steel cornice built up of structural members, which might be copied with advantage. Of the other automobile buildings, the Chalmers plant, the enormous Ford factories, and the building of the Morgan & Wright Tire Company, seemed especially good; many, if not all, designed by Mr. Kahn. They illustrate a phase of his versatility which seems peculiarly adapted to commercial structures. They are utilitarian, yet there is something brisk, pleasant and open about them, so that their real artistic excellence does not seem planted on the face of the structure, but to grow from it.



OFFICES, HUDSON MOTOR CAR CO., DETROIT.
Albert Kahn, Architect.

Beyond the factories the suburbs begin, Grosse Pointe Farms, on the river front, and Birmingham in the low rolling hills directly back from the river, and there are perhaps no American suburbs where the houses are of so uniformly a high quality as in these two places. The naturally picturesque scenery of Detroit and its suburbs has been enhanced and not destroyed by the houses built there, and even within the closely built up parts of the town most of the houses are set with space about them, as is shown in the photograph of the Pitman residence, designed by Mr. Charles M. Bacon, one of the best, but also one of the very many good houses of about the same size and general character directly in the city.

At Grosse Pointe Farms there are two houses by Mr. Platt, one the Alger house already familiar from photographs, and the other not yet completed but of greater excellence. A new house in the Georgian style for Truman H. Newberry, by Trowbridge & Ackerman, is a superb example of the big country mansion. Mr. Kahn has done some excellent houses, mostly in the Colonial school, while Chittenden & Kotting have a number of interesting buildings, of which the Brooks Nichols house, illustrated herewith, is a fair example.

CATHEDRAL, DETROIT.
Cram, Goodhue & Ferguson (Boston Office), Architects.

Birmingham is a settlement of larger places, houses set on large estates rather than on lots, and while there are by no means so many houses as at Grosse Pointe, their average quality is quite as high. There are two other notable things in Detroit which should be spoken of, one the cathedral, designed by Cram, Goodhue and Ferguson, the other the monument to General McComb, by A. A. Weinman, the sculptor, and while these two are pre-eminent in their respective classes, there are several other churches, and two or three more monuments which are excellent, if not extraordinary.

It is, perhaps, hard to give an impression of a whole city by describing the few isolated structures which can be spoken of in an article of this length, and it may be said that there is no single phrase which fitly describes Detroit.

The stage through which it is passing is too evidently transitional to permit one to gain anything but a temporary impression; the development is too spotty, good work and bad work are in too close juxtaposition, and one feels that as far as the town itself goes, the things one would like to speak of are isolated from and not part of a definite whole; even Belle Isle park, one of the most beautiful parks that I have seen, is accessible from the city by a single bridge, and that at some distance from the center of the town. One feels that it will not be very long before the city will have acquired definite and substantial characteristics and that its present condition is ephemeral.

The best sign for its future is that most of the new work (a surprisingly large percentage in fact), is of extraordinarily good character, showing that the great body of its citizens appreciate good architecture, and know good architects when they find them, so that as the poor old work is weeded out and replaced, it will not be by worse new work as is so often the case in our cities, and this is fortunate, for while we can forgive the mistakes of our grandfathers, it is harder to forgive our own.

I have not seen anywhere such a great proportion of new work, not only interesting, but of permanent value in architectural development as in Detroit, and this applies not to any particular class and type of structure, but to the whole range of building activities, banks, hotels, office buildings, factories, churches and residences, and with the tremendously high standard that has been set, Detroit can hardly fail to realize her superb future.

IX. ENGINEERING FOR ARCHITECTS

BY DEWITT CLINTON POND

Mr. Pond has charge of the practical course in structural design at Columbia University. He is extremely successful in instructing men who have had little knowledge of mathematics, and these articles have been written with that in view.

THE sets of steel drawings that an architect is usually most familiar with are the framing plans and the column schedule. The method of determining the sizes of beams in a framing plan was taken up—more or less roughly—in the last article. This article will deal with the considerations involved in the working out of a column schedule. Fig. 51 shows a portion of such a schedule. For the purposes of this article all the columns are made of plates and channels, because tables are given for the safe loads to be carried by such columns in both the Cambria and Carnegie hand-books.

In order to understand the methods employed by engineers in developing column schedules, the architect should become thoroughly familiar with the formulas given in Article V. The stress per square inch that is allowed by the New York Building Department is given by the formulas S=15,200—58 l/r, *l* being the unsupported length of the column in inches and *r* the radius of gyration of the column section—also measured in inches. The method of determining *r* should also be remembered as there often exist cases where ordinary column sections given in the handbook cannot be used.

To these formulas another should be added—one dealing with the conditions of eccentric loading. This is $S=\frac{W_1+W_2}{A}+\frac{Mc}{I}$. In this formula it is assumed that two kinds of loads exist, one, W., coming directly upon the axis of the column and the other, W_2, acting at a distance more than eight inches away from the centre line. W_1 is the axial or concentric load and W_2 is the eccentric load. If no attention is to be paid to the bending set up in a column due to the eccentric load, it is plain that S the stress per square inch due to W_1 and W_2 will be $\frac{W_1+W_2}{A}$ in which formula A is the area of the cross section. This is the first part of the formula given above. There will be, however, extra bending stresses due to the eccentric load—W_2. In Fig. 52 it will be seen that the load W_2 is acting at a distance *y* from the centre of the column. The moment set up by this load will be W*y* and this will be denoted by M.

If the architect remembers the formula for the resisting moment of a beam M=S I/c he can easily see that S=M÷I/c. If this S is added to that caused by the concentric load $\frac{W_1+W_2}{A}$ then the total S in the section will be determined. So the whole formula will be $S=\frac{W_1+W_2}{A}+\frac{Mc.}{I}$ The use made of this formula will be referred to later.

The first thing to be determined is the load upon the column. In order to do this and also keep a fairly accurate record of all his calculations, the architect should adopt some form of tabulating his loads. The following method of recording loads is submitted, not as an absolute and set form, but as one that has proved fairly satisfactory and one that will furnish the architect with a means of attacking the ordinary problems involved in column design.

Fig. 53 shows a sheet, ruled in such a manner as to allow for the tabulation of the loading upon the columns on each floor. The reason for dividing the live load from the dead loads is that the building department allows a reduction of five per cent. in the live load for each floor below the roof and top floor until fifty per cent. of the load is deducted and after that no further deduction is allowed. A space is left for added loads due to eccentric loading, and these loads are totaled for each floor, and then these floor totals are added together to get the total load on the column at each floor.

To explain the method of proceeding an example will be given. Column 21 as seen in Fig. 24, is an interior column having beams and girders framing to it in the ordinary manner. There is no eccentric loading at all. Let it be considered that the live load is 120 pounds per square foot and the dead load 80 pounds per square foot, the total being 200 pounds, 60 per cent. of which is live and 40 per cent. dead load.

The quickest method of finding the load on columns is to consider the area of floor which the column carries. Such an area is included within the lines *ab, bc, cd* and *da* (Fig. 54) and is 19 feet wide by 24 feet long. The weight of this is 24×19×200=91,200 pounds, 54,720 pounds being live load and 36,480 pounds dead load. A record of these calculations is entered on the ruled sheet, Fig. 53, the live

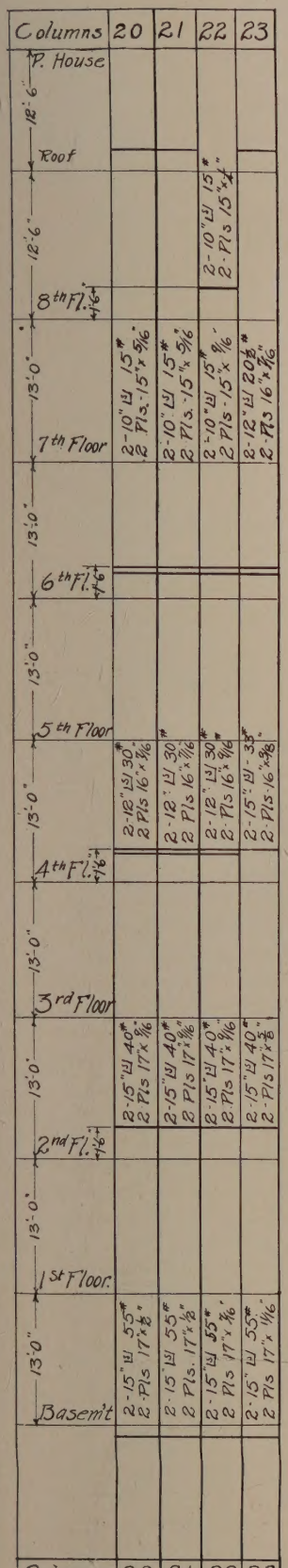


FIGURE 51

load, dead load, and total all being shown, as coming upon the column at the eighth floor.

The roof load differs from that of the eighth floor, in that the live load on the roof is on 50 pounds as required by the building code and the total load will be 80+50=130 pounds per square foot. The load upon the column at the roof level will be $24 \times 19 \times 130 = 59{,}300$ pounds—22,800 pounds live and 36,500 pounds dead load.

The load at the seventh floor would be exactly the same as that on the eighth except that the live load is reduced five per cent. In this connection it may be well to say that the process of dropping off this percentage of the live load at each floor may be made very simple by the use of the slide rule. Dead loads are simply recorded as shown. Ninety-five per cent. of 54,720 is approximately 52,000 pounds. Ninety per cent. is 49,300 pounds and so on. The total load brought to the column by each floor is then found and these totals are added together.

The next step is the selection of the column sections that will withstand these loads. It will be noted on the schedule that the columns are made in sections extending through two floors—that one section extends from the basement to the second floor, and another from the second to the fourth floor. The last section will extend from the sixth floor to the roof and the greatest load upon it is 238,980 pounds. Looking in the table for safe loads for columns it will be found that for an unsupported length of 12 feet a section made of 10-inch 15-pound channels and 15 by ⅜-inch plates will support 245,000 pounds. This must be checked to see if it conforms to the Building Code requirements. $r=4.65$, $1=12\times12=144$. $58\ (l \div r)=58\times144 \div 4.65=1{,}795$. $15{,}200-1{,}795=13{,}405=S$.

The area of the section is 20.17, so the load it will support is $20.17\times13{,}405=270{,}000$ pounds. A lighter column might be used so the section will be made of the channels with 5/16-inch plates. It might be well to state that the Carnegie formula for stresses in columns is different from that employed in determining the safe loads for Cambria column sections and both differ from the formula employed by the New York Building Department, but the results are about the same in all cases. The portion of column extending from the seventh floor to the roof is much heavier than necessary, and in some cases engineers take this into account, but the saving resulting from the cutting down of field riveting and splicing and the extra stiffness of the frame makes the use of a long section of column advantageous. The next section extends from the fourth to the sixth floor and the load of 407,840 pounds at the fifth floor determines the design.

The section given in the handbook as being strong enough to withstand this load is made of 12-inch channels weighing 30 pounds per foot, and 16-inch by 7/16-inch plates. The radius of gyration of this section is 5.04 and $58\times144 \div 5.04=1{,}653$. Subtracting this from 15,200, the stress per square inch is given as 13,547 pounds. The area of the section being 31.64 square inches, the total strength of the section will be $31.64\times13{,}547=428{,}600$. This section is safe and will be used. To jump from a 10-inch channel section to a 12-inch section requires the use of a butt plate and angles. Such a connection is shown on page 308 in the Cambria handbook, and on page 279 of the Pocket Companion published by the Carnegie Steel Company, and is indicated by the use of double lines on the column schedule.

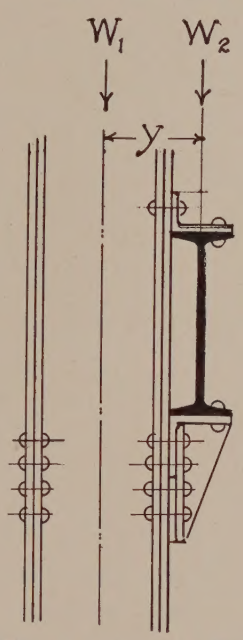


FIGURE 52

The section of column 21 extending from the fourth to the second floor must support a load of 565,700 pounds. It will be found that a section made up of 15-inch 40-pound channels and 17-inch by 9/16-inch plates will be strong enough.

The last section will have to support a load of 712,610 pounds at the first floor and a section made of 15-inch 55-pound channels and 17-inch by ⅝-inch plates will be strong enough.

The next column, number 22, extends to the pent house and carries the load of elevator beams and a portion of the pent house roof. In calculating the sizes of beams necessary to carry the elevator sheave beams the designer had to determine the reactions brought to the columns by these beams. To find the total load upon the column all that it is necessary to do is to add the proper reactions together. For the design of columns alone it is absolutely necessary for the engineer or architect to keep complete records of all the calculations for beams in the framing plans

There is no separation of live and dead loads for the

		Col #20	Col #21		Col #22		Col #23	
Pent House	Dead							
	Live							
	Ecc.							
	Total				105,600			
	Section							
Roof	Dead		36,500					
	Live		22,800				55,970	
	Ecc.							42,900
	Total		59,300		100,835	206,435		
	Section				2-10" [15# 2 pls 15" x 7/16			
8th Floor	Dead		36,480		25,600		43,705	
	Live		54,720		38,400		27,895	
	Ecc.							59,000
	Total		91,200	150,500	64,000	270,435	71,600	127,570
	Sect'n							
7th Floor	Dead		36,480		25,600		43,705	
	Live		52,000		36,480		26,400	
	Ecc.							59,000
	Total		88,480	238,980	62,080	332,515	70,105	197,675
	Sect'n		2-10" [15# 2 pls 15" x 7/16		2-10" [15# 2 pls 15" x 9/16		2-12" [20.5# 2 pls 16" x 7/16	
6th Floor	Dead		36,480		25,600		43,705	
	Live		49,300		34,600		25,060	
	Ecc.							52,000
	Total		85,780	324,760	60,200	392,715	68,765	266,440
	Sect'n							
5th Floor	Dead		36,480		25,600		43,705	
	Live		46,600		32,600		23,700	
	Ecc.							52,000
	Total		83,080	407,840	58,200	450,915	67,405	333,845
	Sect'n		2-12" [30# 2 pls 16" x 7/16		2-12" [30# 2 pls 16" x 9/16		2-15" [33# 2 pls 15" x 7/16	
4th Floor	Dead		36,480		25,600		43,705	
	Live		43,800		30,700		22,300	
	Ecc.							52,000
	Total		80,280	488,120	56,300	507,215	66,005	399,850
	Sect'n						2-15" [40# 2 pls 17" x 5/16	
3rd Floor	Dead		36,480		25,600		43,705	
	Live		41,100		28,800		20,900	
	Ecc.							52,000
	Total		77,580	565,700	54,400	561,615	64,605	464,455
	Sect'n		2-15" [40# 2 pls 17" x 7/16		2-15" [40# 2 pls 17" x 9/16			
2nd Floor	Dead		36,480		25,600		43,705	
	Live		38,350		26,850		19,500	
	Ecc.							52,000
	Total		74,830	640,530	52,450	614,065	63,205	527,660
	Sect'n.							
1st Floor	Dead		36,480		25,600		43,705	
	Live		35,600		24,950		18,100	
	Ecc.							52,000
	Total		72,080	712,610	51,550	665,615	62,805	589,460
	Sect'n		2-15" [55# 2 pls 17" x 7/16		2-15" [55# 2 pls 17" x 9/16		2-15" [55# 2 pls 17" x 11/16	

FIGURE 53

roof and pent house beams as there is no percentage of the live load deducted until the eighth floor is reached It will be noticed on the column schedule that a section extends from the sixth to the eighth floor and another from the eighth to the pent house roof. Both for the economy of material in the column section and for the requirements of shipping this is necessary. The load that the top section must stand is found at the roof. This is 206,435 pounds, and a section made of two 10-inch 15-pound channels and two 15-inch by ¼-inch plates will answer. The rest of the calculations are the same as for column 21.

So far all loads have been concentric or axial loads, but column 23 has to support a wall load which sets up bending stresses in the column. The method of finding column sections of sufficient strength to withstand eccentric loads is not direct, but involves assuming sizes and then checking. Of the 55,970 pounds brought to column 23, 25,500 pounds are eccentric as they are due to wall loads. The beams that carry the wall are 8 inches off centre. (Fig. 54.) The moment, M, set up by the eccentric load is 25,500×8=204,000 inch-pounds.

Referring to the formula in the first part of this article, it will be found that the added stress per square inch due to the eccentric is M÷I/c or $\frac{Mc}{I}$ ♎ I/c for a column section such as those used in this article can be found in the handbook under the heading "Moments of Interia and Section Moduli for Plate and Channel Columns." Assuming, for reasons that will be given later, that a section made of two 12-inch 20.5-pound channels and two plates 16-inch by 7/16-inch will be strong enough, I/c can be found to be 123.9. M÷I/c will be 20,400÷123.9=1,647. This is the stress per square inch set up by the eccentric load. To find the load that would cause an equal stress per square inch if exerted over the entire area of the column, simply multiply this unit stress by the area of the section. 1,647×26.06=42,900 pounds. This load is placed in the outside column in Fig. 53 and is not added until the area of the section of the column is to be determined.

The same process is gone through to find the loads for the eighth floor. The actual eccentric load being 35,000 pounds, it will be found that a concentric load of 59,000 pounds will have the same effect as the moment set up by the eccentricity. It will be noted that there is no separation of the live and dead loads at the roof level, but that this must be done at the eighth floor. The same process is gone through for the seventh floor, but the live load is reduced 5 per cent.

The section of column extending from the sixth floor to the roof will have to be designed to carry the load of 256,675 pounds—the sum of the load brought to the column by the roof, the eighth, and seventh floors plus the greatest load due to eccentricity. In the table of safe loads a column made of 12-inch 20½-pound channels and 16-inch by ¼-inch plates will give about the proper strength. The radius of gyration is 5.23. 15,200—58×$\frac{144}{5.23}$=15,200—1,600=13,600 pounds per square inch. Multiplying this by the area and the result—272,000 pounds—will be near enough.

The next section will only have to be made strong enough to withstand the concentric load of 197,675 pounds brought down by the upper section, plus the floor loads at the sixth and fifth floors and the eccentric load at one floor. The eccentric loads on the top section will not be added to those of the lower portion. Thus it may be assumed that there will be an added concentric load of about 59,000 pounds approximately. So at the fifth floor level

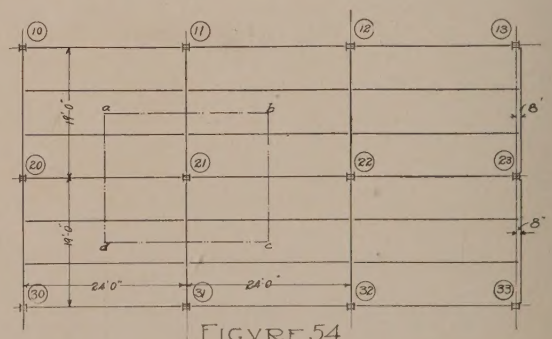


FIGURE 54

there will be an *assumed* load of 197,675+140,000+59,000 =396,675.

For this load it will be better to choose a section made of 15-inch channels as the weight of a light 15-inch channel section will be about the same as a fairly heavy 12-inch channel column, and the section modulus will be much larger giving more resistance to bending. The section modulus of a column made of 15-inch 33-pound channels and 17-inch by ⅜-inch plates is 175.1 and the area 32.55 square inches. The added eccentric load will be 52,000 pounds. Adding the loads, as shown in Fig. 53, the load at the fifth floor will be 333,845+52,000=385,845 pounds. Checking the section as before it will be found to be strong enough to withstand this load.

Applying the principles outlined in this article to the remaining sections the results will be found to correspond to the figures in the column schedule.

THE YOUNG ARCHITECT AND HIS FIRST COMMISSION

BY F. H. WARNER

Client and architect alike must recognize that trouble arises too often, not by reason of the bad intentions of contractors, but from lack of foresight before the builder came upon the scene.

WHERE a proposed building is not of sufficient importance to warrant the engagement of a clerk of works, the supervision of the contractor's operations devolves upon the architect. The position, in the case of a young man carrying out his first commission, is an onerous one. He needs to be successful for a twofold reason—that it may not, by direct failure, prejudice his future, and that it may lead to further commissions. It is well understood, and commonly enough averred, that one "job" leads to another—often to more than one, directly and immediately. This is, in fact, for the architect, his best form of effective advertising.

As a first step towards the insurance of a successful contract, it is imperative to select very carefully the firms tendering. The best and most elaborate of building agreements will not prevent trouble if the contractor has a disposition to create such. The position of affairs where the architect is his own clerk of works is plain enough. Much must be taken on trust, for the obvious reason that if one visit of one hour's duration per week be paid to the works, this means that for say some fifty-nine sixtieths of the whole course of the contract period there is absolutely no supervision.

It is not always easy to follow our rule. The practice is not, at times, encouraged by the attitude of clients, who tend to regard the combination of architect and agreement as all-sufficient. The prior knowledge of parties tendering, too, is usually second-hand—recommendation. Where we have tested by previous business relations, and so know at first-hand, harmonious progress of building-work is assured. With mere recommendation by a third party, we are liable to fall where we think we stand. It was a recommended and highly "moral" individual who drove us to a first inspection of new building-works. Nevertheless, the sample of "clean sharp sand" that we took home and washed yielded 50 per cent. of honest mud, so that, there being required for the execution of these particular works 120 loads, we were proposed to be treated to sixty loads of sand and sixty loads of mud—the latter, in its way, an excellent material; in fact, we recommended it to the contractor's notice as a most desirable top-dressing for a clayey garden-soil. That contractor, we remember, being of a distinctly "religious" turn of mind, warned us, as we jogged along in the buggy, that "a man's conscience" alone might prove a sufficient Hades. We are by no means sure—in his case!

Sad it may be; but we shall find that, when all is said and done, *Caveat emptor* is the word. We may do well to sharpen our wits in the interest of clients; but before laying blame in specific cases, let us assure ourselves that we are not at fault. Want of foresight, want of care, want of definite expression in specification, are constants in the trouble attendant on architects' duties as supervisors, and hotbeds for engendering and multiplying "extras."

Foundations are, as a rule, considered fair excuse for extras. "I am astounded," wrote a client some years back. The extras certainly had mounted up. A preliminary and not expensive set of boreholes would have saved annoyance. There was a reliable clay for the main building, but an important addition stood over made ground. The work was far from town, and many "wires" were despatched advising the stiff-necked foreman to "get down to the yellow clay." In the end our insistence prevailed, and the building is without the broken back that assuredly must have been the result of giving heed to the special pleading of the foreman in his letters of advice as to his progress downwards. The avoidance of extras is a matter largely of care and forethought before a sod is cut or a brick laid.

Whoever may be directly to blame for difficulties attendant on imperfect supervision, the architect cannot shelve final responsibility. The onus is ultimately on him. This is as it should be. The client employs an architect not merely to design something, but to see it soundly constructed. The youthful practitioner who may have started independently—as some do—but a few years out of his apprenticeship fails not, as a rule, from want of knowing what constitutes plain, sound building-construction, but for want of knowledge of the world—of his fellow-men, of the influence of character, of the necessity for rigid firmness and quick decision in condemning inferior materials and workmanship. The knowledge of good material and workmanship is patent to the most youthful of properly-educated architects, so that advice to the young architect as to works supervision becomes not simply a matter of hints on practical constructive methods. Two men may equally know and recognize good work: the one gets what he wants, the other does not. Both, let us say, specified brickwork to be properly flushed. One gets a homogeneous, rock-like structure—brickwork as it should be; the other, an aerated, honeycombed mess of bricks and mortar. To a large extent, successful first essays in independent architectural practice are by men sufficiently experienced as subordinates under older architects. These men know good work when they see it. Plainly, therefore, in the majority of cases the art of supervising demands no addition in practical knowledge, but rather—since it is a point of management—that exercise of self-control which is a first requisite for the control

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PERSPECTIVE, CHURCH OF SAINT VINCENT FERRER, NEW YORK. Bertram Grosvenor Goodhue, Architect.

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of others and the insurance of the client's interest as building-owner.

The young architect with a first commission, and without clerk of works, will do well to spend as much time as possible upon his building in progress, especially at the outset, when the ground is open, and during concrete-laying and foundations-making. At this stage we shall see the difference between the man with a will and the man without, taking it for granted that the knowledge of brick, tile, slate, stone and plaster, and the whole gamut of building operations, is equal in both cases. An ounce of firmness now is better than a ton of remonstrance by-and-by, when, unhappily, the structural work is nearly completed, and the builder bankrupt. It will have been remarked to many, "I do not want an architect to plan me a building: I want him to see that the building is properly carried out." Sometimes, no doubt, the first assertion is a delusion; but the latter is rational enough. But client and architect alike must recognize that trouble arises too often, not by reason of the bad intentions of contractors, but from lack of foresight before the builder came upon the scene. No amount of supervision will readjust and bring into final harmony matters still nebulous and ill-defined at the staking-out of the work. While, therefore, we repeat the old adage as to the necessity for caution in buying, we must emphasize the fact that indefinite plans and loose specifications are as largely responsible for difficulties and unpleasantness during construction as actual scamped building. To write advice to the inexperienced on supervision of works that will insure the obtaining of sound workmanship is, in one way, to attempt the impossible. The architect, young or old, who knows exactly what he wants, and intends to get it, is the man who will carry his point. But he must know how to state it, and the builder must know and feel at a very early stage of the job that the stipulations he has to fulfil are alike the fruit of sound knowledge and the pledge of due vigilance.

EXPRESSION IN ARCHITECTURAL DETAIL

BY JOHN A. RENWICK

We cannot but conclude that all decorative form should have reference, basically, to something natural—existent and created, or, as in the case of geometry, co-eternal.

FORM, as it develops under hammer and chisel, may typify the emergence of definite theme from nebulous idea. In like gradual manner line and lineament are evolved in the brain of the designer. We grope blindly for clear expression of that which we do not at first clearly comprehend. A hazy first notion becomes defined only as we strive to express our sentiment—as we bring the subject-matter of our thought into better and better focus. All that may reasonably be termed novel in design is no doubt produced in this way, since invention if often slow, step by step, and laborious.

In all these efforts of the brain, that which we are in reality striving to attain is definite expression—the clear-cut and logically correct transcript of mental imagery. We seek to place, with pencil on paper, the fleeting idea. We shall be well advised to exercise patience in attaining this. It will be well thoroughly to grasp and fully interpret our idea. The hasty transference of ill-considered design to solid stone will mean loss of definiteness. Some of the shadowy vagueness of our first mental conception will inhere. That which we should earnestly seek is definition. We desire the intelligible and apparent meaning, import and significance.

It has been said that curiosity is the real overmastering passion. We are all continually asking—subconsciously, no doubt—"What is it?" In direct and indirect ways we constantly put this question to ourselves. It is ever present, as we encounter novel objects. For this reason, we must assume that the matter greatly concerns design. We should at all times remember the promptings of curiosity, and by no means dismiss the subject by counting it an ignoble passion. We should recognize the position, and remember that anything ill-defined, from carelessness or lack of sufficient thought and consideration, causes perplexity and leads to offence. We should endeavor so to present our architectural ideas that the meaning and nature of the object are never in doubt; for that which we do not, or cannot, understand or clearly comprehend engenders mystery. In this way we may be impressive, and even awe-inspiring; but since, in architecture, we seldom need to produce the mysterious, definiteness of expression, obvious intention and meaning should be our aim.

There are few more praiseworthy aims in practical architecture than an endeavor to give correct and clear expression to everything added to plain building as an ornamental accessory. We know that this general principle is at the root of successful architecture as an affair of organic constructional parts; we must hold that a similar effectiveness characterizes architectural ornament that has fitting and definite expression. It is the meaningless, purposeless scroll, or curve reflex, representing nothing definite, based on no prototype, referring in no way to objects found in nature, that fails by virtue of its absence of definite expression.

If we examine ourselves, no doubt we shall find we all like to recognize, clearly, that, say, an oak or a vine-leaf is intended. We like and we admire definite expression, faithful observance of characteristic of this or that natural prototype, which the designer has taken as a model, or used as a motif. Where very highly-conventionalized ornamentation is concerned, our rule may need a little latitude in application. Yet is it to be noted that we cannot truly conventionalize, excepting as we exalt and aggrandize characteristic, and instill more of the essential spirit of the object conventionalized. If we make any one chance leaf or flower a model, we must needs produce a less characteristic representation of the genus than when we take as a model an ideal form conceived as the average of numbers of such leaves or flowers. In true and masterful conventionalizing, the spirit of the natural object is enshrined, so to say, in the ornament. By thus considering our proposition, that definiteness and ready-recognizability are most desirable attributes in architectural ornamentation—to employ a not very happy, if common, expression—we should arrive at the conclusion that in conventional, floriated enrichment, having real, natural, basic prototype, a high degree of definiteness is required

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INTERIOR, CHURCH OF SAINT VINCENT FERRER, NEW YORK. Bertram Grosvenor Goodhue, Architect.

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in design, and is, by the very nature of the process of true conventionalizing, assured.

The belief that definiteness of expression is essential in good architectural enrichment will, we believe, be established on all grounds of inquiry. Besides the sweet reasonableness of the principle, we shall find that the measure of definition is closely related to the amount of skill and thought bestowed upon the work; and that carelessness and haste, and, obviously, ignorance, are at the root of that indefiniteness of expression and lack of intent and purpose in "decorative" device, which we too often find in contemporary architecture. We curve and reflex and re-reflex, and let things go at that. It is so easy; but to produce a truly sculpturesque acorn is not easy.

When we ask that question: "What is it?" we shall find, as a rule, that the readiness of answer corresponds to the amount of care and thought with which the decorative device has been executed. If we desire character in enrichment we must go to Nature for some prototype, and let oak-leaf in wood, or stone lily, show obvious relation to this. We have, then, Nature as guide; and truly, in decorative design, we must appeal very directly to natural form for motive and inspiration. We have no other guide, no other compass, here.

Pure geometrical ornament we may view in a somewhat modified light, although geometry is obviously natural enough. We might classify all necessary architectural enrichment and ornamentation into the quasi-natural, or "naturalesque," the more or less conventional, and the wholly geometric. In the former we must include all frankly realistic carving, the best work in which is saved from the charge of ignoble imitation by the instinct of the sculptor who imparts the sculpturesque attribute. Our principle of endeavoring to impart the fullest and most characteristic form and lineament warns us against mixed ornamentation—vegetation growing out of animals, and like evidence of debased thought in design matters. Certainly, if we encounter an object of supposed value as architectural decoration, half-tree, half-animal, we might pertinently ask: "What is it?"

All naturalesque, conventional, and geometric forms are, in reality, based on nature. In seeking to impart that fitness for architectural embellishment which differentiates slavish imitation from true ornament, we should endeavor to give to the first class of ornamentation high resemblance to prototype, short of missing that sculpturesque quality that lifts the work out of mere copyism. In highly conventionalized ornamentation, we should rather seek to instill the spirit of plant life Taking such a decorative device as the Grecian honeysuckle, we see that it is a highly-conventionalized ornament, and over and above the special beauty of the flower that forms the motive of the design, the general disposition and arrangement of the parts displays vigor and vitality. The definite expression sought to be expressed in conventional form is, in major part, the essential grace and beauty of plant life.

We cannot but conclude that all decorative form should have reference, basically, to something natural—existent and created, or, as in the case of geometry, co-eternal. Unless this statement is carefully weighed, it may be doubted. It will, on mature consideration, we think, be found substantial, and acceptable to all but those who see beauty in meaningless scrolls, and purposeless curve and reflex. He who imagines that he can evolve true and beautiful ornament from his inner consciousness without reference to natural base or prototype—motif—practises self-deception, and is less a true artist than the savage who incises roughly, simple natural objects on his door-posts, or than Palæolithic man rudely drawing the mammoth on fragments of tusk.

Let us commence our work by asking ourselves the question, "What is it?" Such a practice followed in actual process of design might tend to rid us to some extent of the fearsome horrors of rococco ornament, and of the senseless, double-ended, curved and reflexed bone-like objects that seem an obsession in the minds of so many so-called "ornamental" draughtsmen.

CHICAGO ARCHITECTURAL EXHIBITION.

THE First Annual Exhibition held jointly by the Chicago Architectural Club, the Illinois Society of Architects, the Illinois Chapter, American Institute of Architects and the Art Institute of Chicago will be open in the galleries of the Art Institute of Chicago from April 8th to April 28th, 1915.

The preceding exhibitions have been given by the Chicago Architectural Club. This year all the above named societies will participate, increasing the breadth of and interest in the exhibition.

Exhibits will be received up to and including Friday, March 19, 1915, and will be discharged on Saturday, May 1, 1915. All exhibits accepted by the Jury of Admission must remain until the close of the exhibition. Exhibits should be sent to the Art Institute, Michigan Boulevard, Chicago. The Exhibition Committee will arrange to collect and return exhibits from exhibitors in Chicago, and will advise such exhibitors as to what day collector will call.

All correspondence in regard to the exhibition should be addressed to R. C. Llewellyn, 38 South Dearborn St., Chicago.

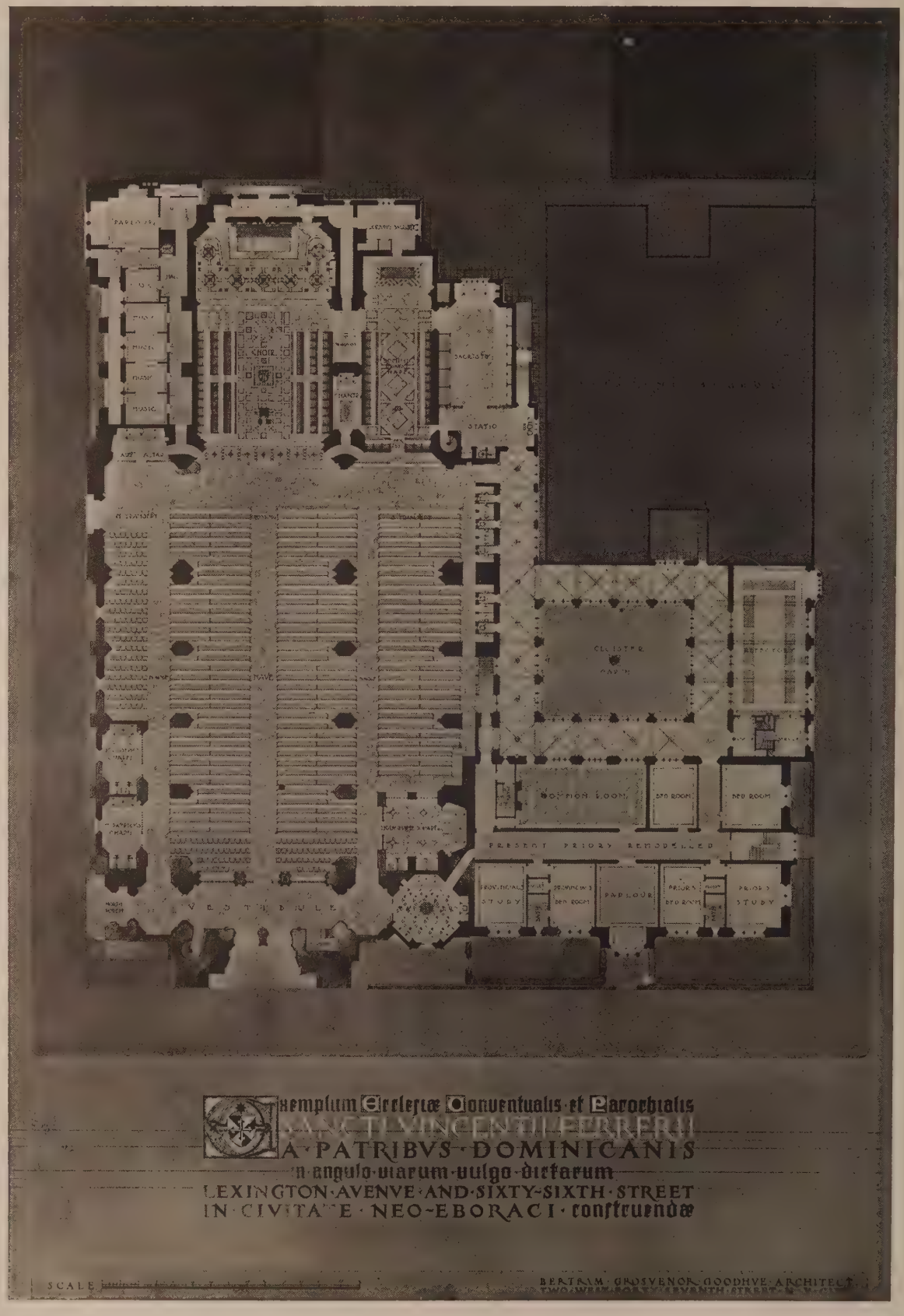
BOOK REVIEW.

THE ART OF LANDSCAPE ARCHITECTURE. Samuel Parsons. 1915. G. P. Putnam's Sons, New York. Illustrations and text. Cloth $3.50 net.

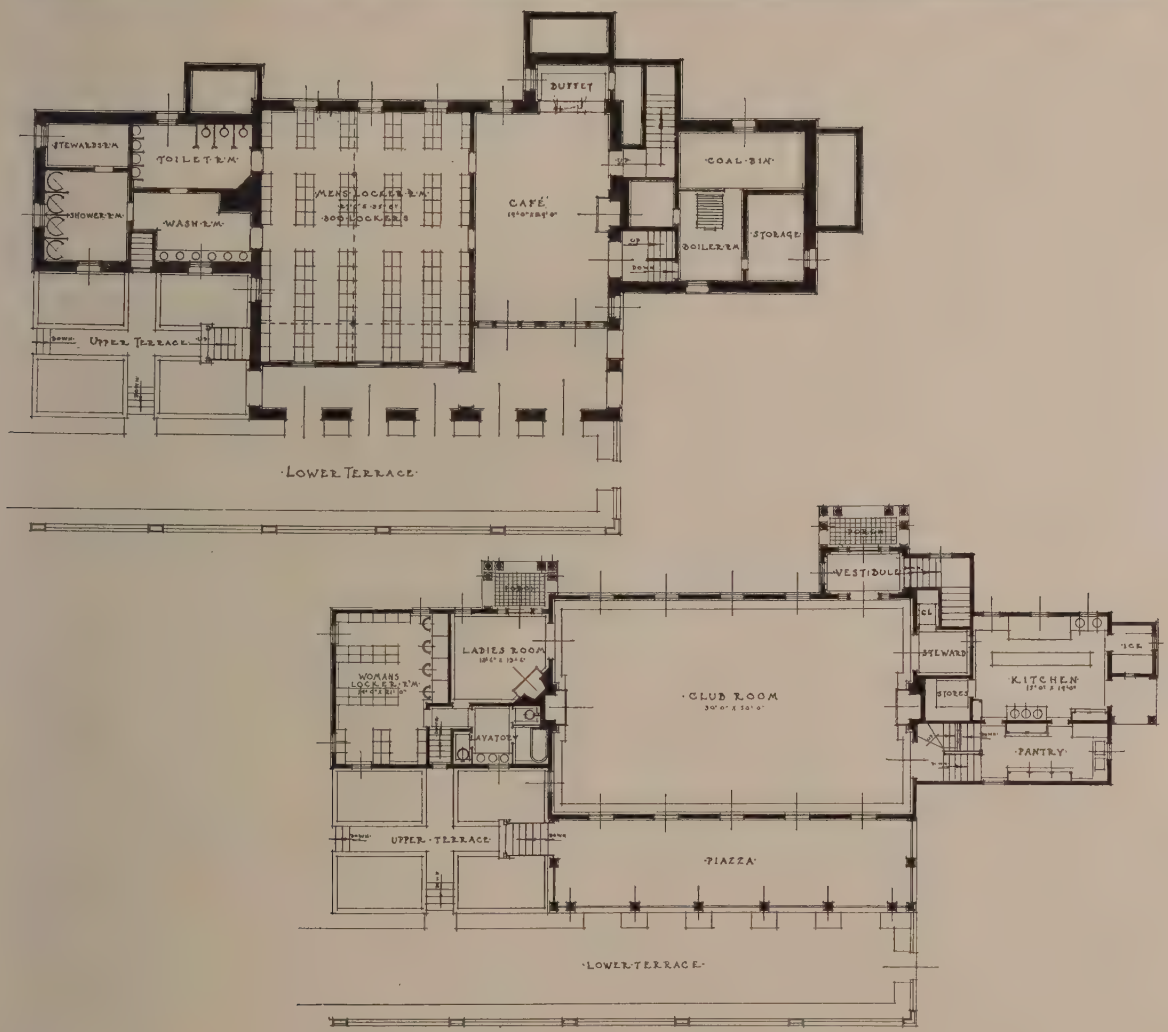
There have been several authoritative books written entitled Observations or Hints on Modern Gardening or else the Theory and Practice of Landscape Gardening. In later times, however, it has been felt that a title of wider scope was needed than "landscape gardening," which seems to limit the subject in the minds of many to the treatment of a flower garden or an exhibition of brilliant colour in a parterre of bedding plants.

An architect, taken from the Greek, means master builder. He is one who designs and frames any complex structure; one who arranges elementary material on a comprehensive plan.

Plato made "the causes of things to be matter, ideas, and an efficient architect." Although the term architect has come to mean almost exclusively master builders in wood, stone, iron, etc., the term landscape architect is equally appropriate. A landscape artist, who creates scenery from trees and flowers and earth and rock and water, arranges elementary materials on a comprehensive plan. He has his standards of workmanship like the architect, and these standards are subtle and difficult to establish and explain, because they are dependent for their value on the growth of living things. Such artistic work is also dependent for value on the general consensus of opinion delivered by well recognized authorities. The work is done instinctively; criticism and rules may be deduced from the work afterward, but good artistic design and craftsmanship are instinctive. Kant, in discussing æsthetic judgment, said, "Judgments of taste are not susceptible of proof, but they may be evoked when an opportunity for immediate perception occurs. Their general validity is exemplary, *i.e.*, it is gained by means of examples, not rules."

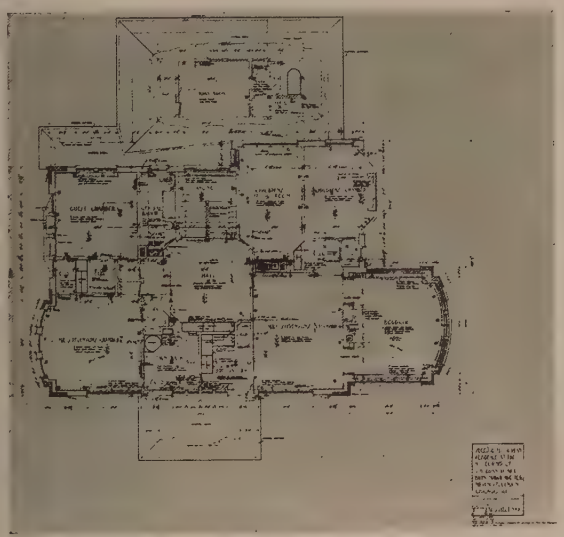


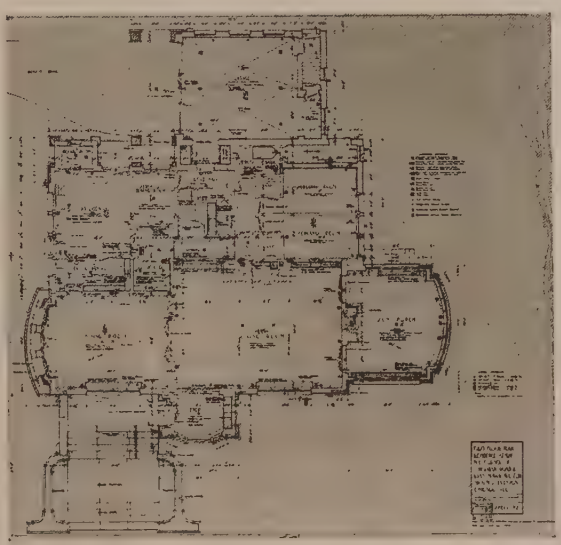
PLAN, CHURCH OF SAINT VINCENT FERRER, NEW YORK. Bertram Grosvenor Goodhue, Architect.



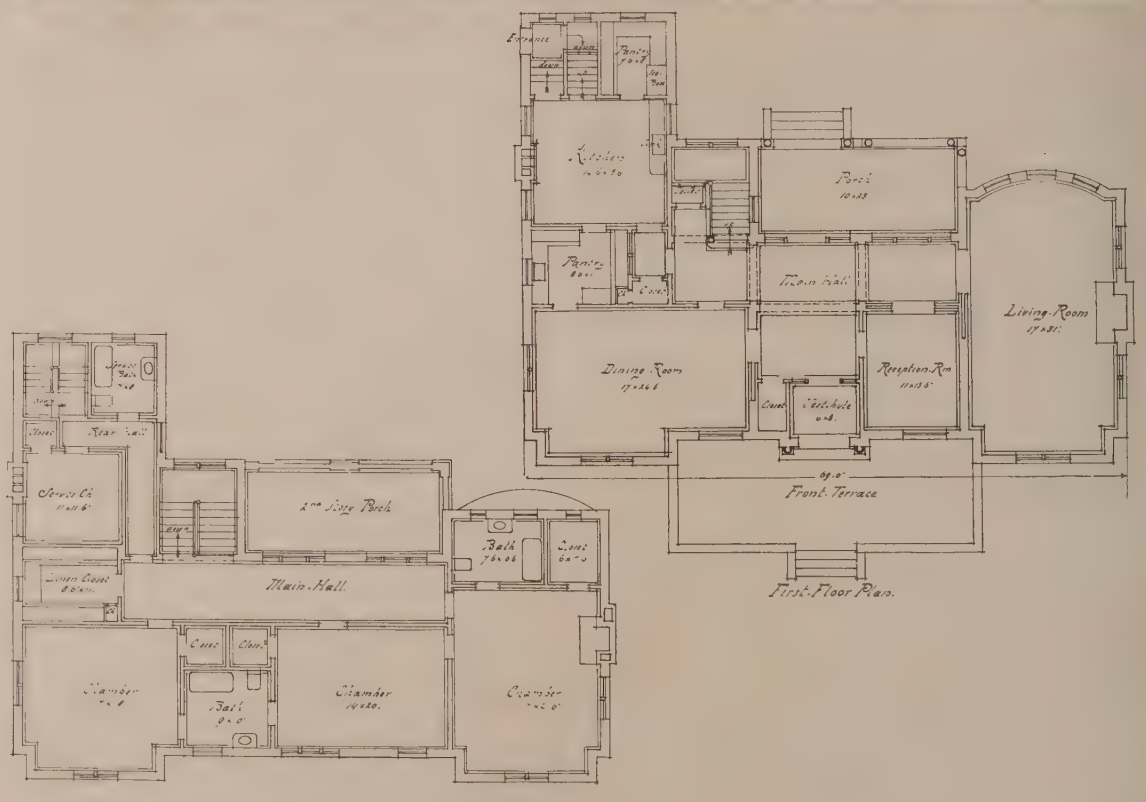
ENTRANCE FRONT AND PLANS, KNICKERBOCKER COUNTRY CLUB, TENAFLY, N. J. Aymar Embury II, Architect.

LAWN FRONT, KNICKERBOCKER COUNTRY CLUB, TENAFLY, N. J. Aymar Embury II, Architect.





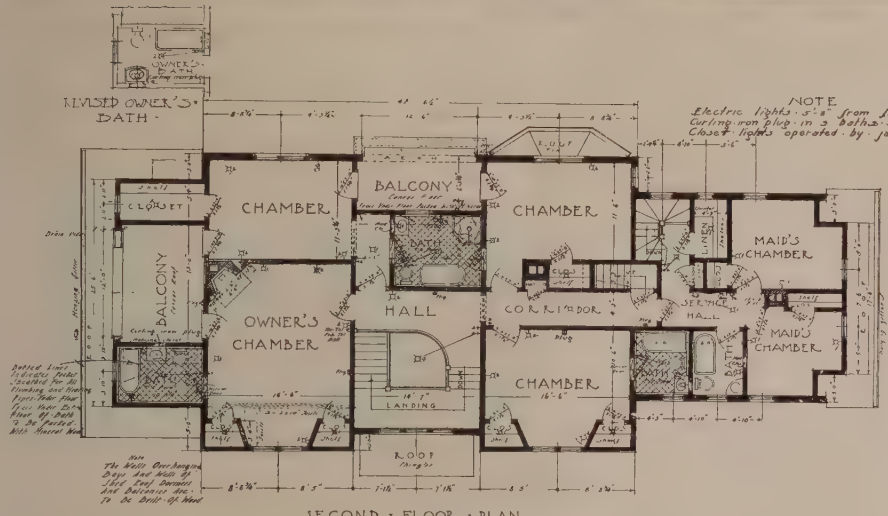
HOUSE AND PLANS, H. M. STEVENSON, CHICAGO. George W. Maher, Architect.

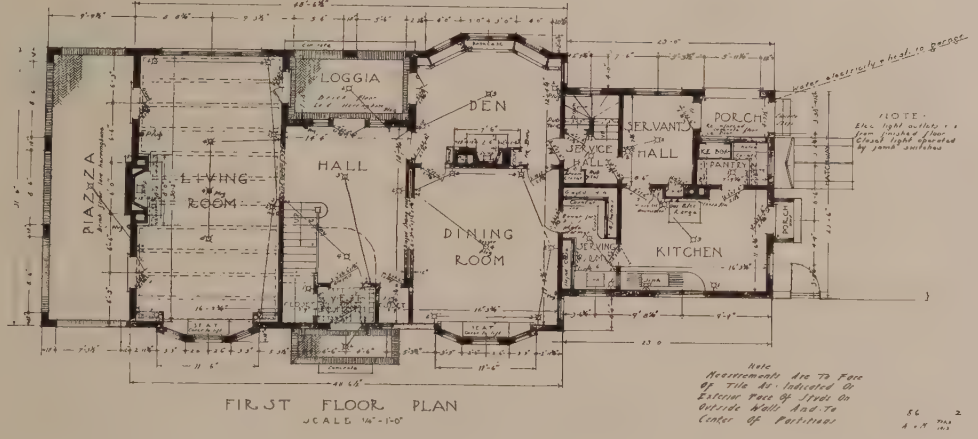


First Floor Plan.

Second Floor Plan

HOUSE AND PLANS, JULIUS HAASS, DETROIT. Chittenden & Kotting, Architects.

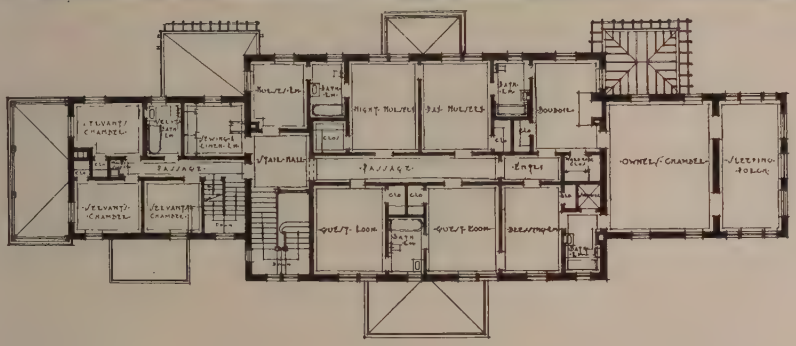


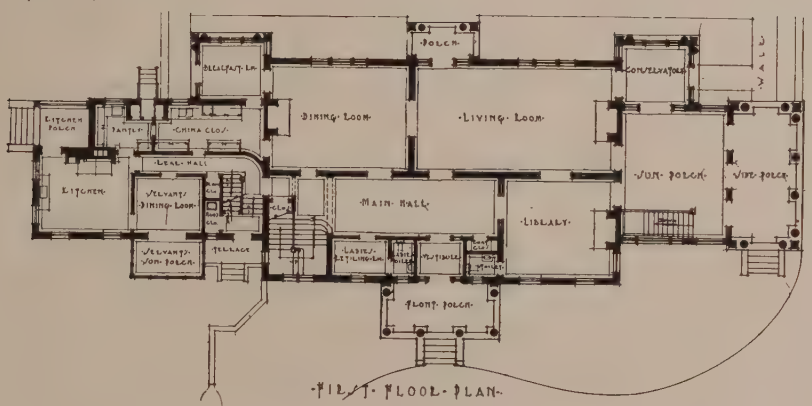


HOUSE AND PLANS, DAVID VAN SHAACK, HARTFORD, CONN. A. Raymond Ellis, Architect.

HOUSE, J. BROOKS NICHOLS, GROSSE POINTE, DETROIT, MICH.

Chittenden & Kotting, Architects.





DETAIL AND PLANS, HOUSE, J. BROOKS NICHOLS, GROSSE POINTE, DETROIT. Chittenden & Kotting, Architects.

GARDENS, HOUSE, J. BROOKS NICHOLS, GROSSE POINTE, DETROIT. Chittenden & Kotting, Architects.

HOUSE, MR. AND MRS. WILLIAM B. LEIGH, BRIDGEPORT, CONN. Ernest G. Southey, Architect.

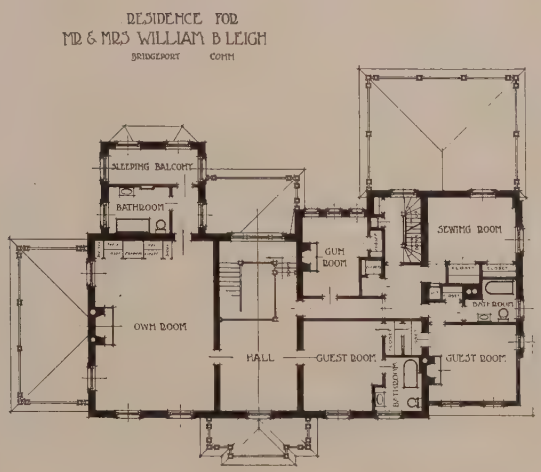
Dining Room.

Breakfast Room.

Hall.

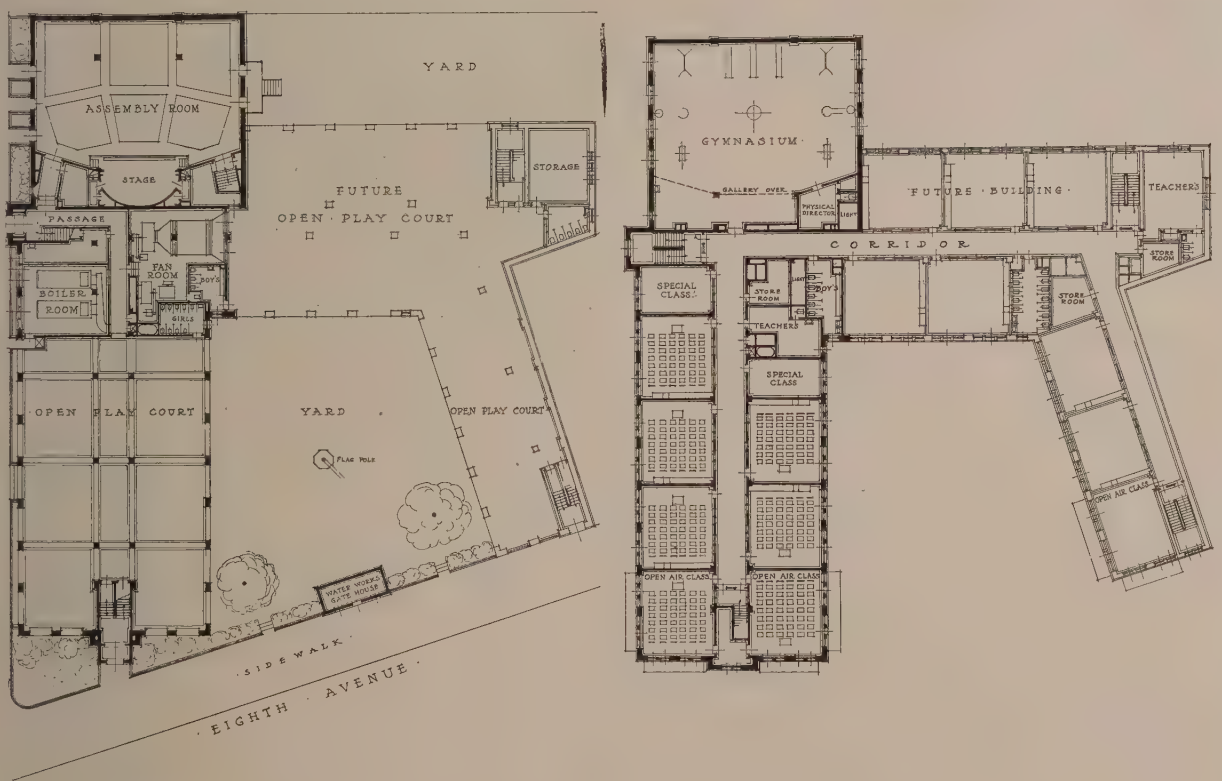
Hall.

INTERIORS, HOUSE, MR. AND MRS. WILLIAM B. LEIGH, BRIDGEPORT, CONN. Ernest G. Southey, Architect.



ENTRANCE AND PLANS, HOUSE, MR. AND MRS. WILLIAM B. LEIGH, BRIDGEPORT, CONN. Ernest G. Southey, Architect.

SHOW ROOM, ARCHITECTS SERVICE DEPARTMENT, BRIDGEPORT WOOD FINISHING CO., 6 E. 39TH ST., NEW YORK. Wm. E. Moran, Architect.



PERSPECTIVE AND PLANS, McKINLEY SCHOOL, NEWARK, N. J. E. F. Guilbert, Architect.

ARCHITECTURE

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PLATES AND ILLUSTRATIONS

EDITORIAL

HOW TO REACH THE ARCHITECT—THE LOFT BUILDING AND THE MOVING PICTURE THEATRE—THE McKINLEY SCHOOL

THE method by which the material men endeavor to get in touch with the architects and upon which the architects depend for their information about new and standard building material, is cumbersome, wasteful and inefficient. The manufacturers who spend thousands of dollars of their good money in advertising and in getting out booklets and circulars filled with information which is often valuable and otherwise unobtainable, realize this more keenly than the architect, although the latter, if he is at all conscientious, wades through volumes of literature irrelevant to his needs, in order to find exactly the thing that he wants to know about. Added to this is the expense to the manufacturers of numerous agents, many of them picked for their technical knowledge and agreeable personality, who make call after call on the architects without seeing any one or without getting a hearing. Yet the architects do want to know, but the whole work of giving and obtaining this information is carried out in a most shiftless, hap-hazard sort of way, without co-ordination, and without a very clear idea of timeliness and economy.

For example, a certain architect in this city was awarded a small city hall; the information was circulated promptly through one of the bureaus mailing-out reports. He was swamped with tons of literature including a number of circulars from manufacturers of Telfer devices, and of other methods of economically lifting heavy loads. This was wasted, but some of the circularization was timely and of assistance to him, showing that certain manufacturers realize that each building has some particular quality into which certain devices may fit, and that there is no

use sending circulars, except when there is some chance that the objects described in them may be used by the particular architect to whom the circulars are sent.

Firms are usually more careful about sending their representatives around to talk to the architects without some specific object in mind. The time of these men is too valuable to be wasted, but even so there is a tremendous loss of effort in the attempt to reach the architect by word of mouth. Some architects have endeavored to set aside certain days, or to establish office hours daily, during which manufacturers' representatives will be received, and their devices examined; this arrangement is probably the best that can be made. From the point of view of the architect the principal objection is that he obligates himself or a capable representative, to be on hand at these specified times, a thing which can often be accomplished only at a sacrifice of his convenience and that of his clients. In the small officecs, such an arrangement is impossible because one man has so many duties to perform that he can see agents only when he knows in advance that he wants to see them, or when he is not otherwise engaged. Wherever such a system is used it is found to be the desirable one, as it in no way precludes the architect from calling upon the services of any manufacturer should he require them at other times, and it gives men exhibiting new schemes a certain right to be heard.

While it is not difficult to reach architects in the big cities by manufacturers' representatives, it is impossible to reach all the architects in the smaller towns and villages, who need to know about new things, although their business is quite as important to the manufacturers as that of the men in New York and Chicago. These men can be reached only through circulars or through advertisements in the architectural journals. All architects grow to depend very greatly upon the architectural magazines to keep in touch with current work. In large cities architects are more liable to be influenced by work that they see, than by the illustrations of work by men whom they don't know; thus, for example, in Chicago, where ARCHITECTURE and others of the Eastern magazines enjoy wide circulation, the main current of the design is influenced rather by the examples of the good men in Chicago than by the good men elsewhere. This is not true of the smaller cities, where the designers follow the work of New York, Boston, Chicago and the larger places as they see it illustrated in the architectural press. Besides using the magazines for design these men get to depend upon the advertising pages for general information as to materials and processes, since such advertising is generally timely, and is often coupled with announcements that the materials or processes advertised have been used in one of the buildings illustrated in the same issue, and this fact is a sort of guarantee of the quality of the advertised article. Manufacturers can therefore safely depend upon magazine advertising for general publicity, reserving circularizing for special cases when they know that their material is to be used. If this principle be followed, so that the architects gradually become aware that their mail contains only useful circulars, there will not be the present tendency to throw away all the circulars unread. Of course, many manufacturers realize this very point and act upon it, but there are a great many others who seem to believe that circularization is always timely and never injurious, whereas the fact is that the flood of circulars continually received in an architect's office defeats its own purpose.

Furthermore as these circulars are printed in all sorts of forms, there is no way of filing such circulars that is completely satisfactory to the man who depends upon them for his information. Various systems have been tried to overcome this difficulty, and most of these systems have marked points of advantage. While it cannot be hoped that at present any very radical change in this system can be made, the writer believes that certain general recommendations will prove of value both to the architects and to the material men. To recapitulate these are:

First: Manufacturers' agents should call only when they have some specific object in mind, unless at times set apart by the architects for general missionary work.

Second: Architects should, where possible, set aside hours when manufacturers' representatives will be received to show new devices.

Third: Circulars should be sent only when they are pertinent.

Fourth: Circulars and booklets should be standardized in form.

Fifth: General missionary advertising should be, so far as possible, confined to the architectural magazines and kindred booklets, leaving detailed and specific information to the circulars.

Sixth: Advertising in the architectural magazines, so far as possible, should be backed up with references to subjects actually illustrated in the current issues of the magazine.

THE loft building and the building for the moving picture theatre have but one thing in common, and this is the manner in which they have developed. For practically all our American buildings, except the tall office buildings, we have old precedents, and we have usually followed these in our designs, trusting to our modern sense of detail to guide us in producing new qualities. For the office buildings we have laboriously erected a set of precedents, and in current practice we are working in this problem just as we have done with our residences, our public buildings and our churches, changing, developing, adapting, but not inventing.

There has been a good deal of boom and hurrah about the design of much of our modern work, especially that of our monuments. We have told ourselves, sometimes face to face and sometimes through the newspapers and the architectural press, that in spite of our use of elderly motives we are working in a new manner. But there has been very little said about the design of loft buildings and moving picture theatres, yet in these two fields where the growth has been enormous, and has been concentrated within a very few years, there has been little attempt to create a type, and the designers of these two sorts of structures have not been architects whose ability is recognized as pre-eminent. The men who have designed the loft buildings and the moving picture theatres have approached their problem primarily from a commercial point of view; they have considered first the necessities of their plans, both in the way of attaining maximum floor space and proper lighting, and then have blocked out façades which met these requirements. The result has certainly been a triumph for those theorists who insist that a properly laid out plan would carry with it a good elevation, for probably no other type of structure has been built in the United States today where the results for *all* the work are of such uniformly good quality as the loft

buildings and the moving picture theatres. It is perfectly true that we have no such triumphs of design in either of these classes as we have in the churches, the public buildings and the residences which have been built within the last ten years, but on the other hand we have no such damnable exhibitions of bad taste as we find in the more pretentious structures. A poor architect who endeavors to use lots of architecture in his structure is almost bound to produce bad results, and even a good architect working in forms which are outside his metier will occasionally produce very bad stuff, but the very practice of architecture trains men (however inept), to some appreciation of form and proportion, and when the instinctive sense of just proportion is not warped by a feeling that the structure calls for something "grand," the results are generally pretty good. This can be absolutely proven by any one who wants to go out and look at our loft buildings and our moving picture theatres.

Of the two classes the loft buildings are the most successful, because even in the moving picture theatre the architects have not been able to divest themselves entirely of consciousness of tradition, and oftentimes in the façades have endeavored to reproduce well known theatres in miniature instead of designing precisely the façade that the plan required. The loft buildings throughout the country are sound architecture because commercial conditions have dictated certain features which have made them sound. They have plain square openings, divided as a rule into small lights, because such sash are cheaper to buy and more durable than sash with the large lights; the lines of the columns are marked by vertical piers, because the wall between the columns is a screen wall which can be reduced in thickness; the cornices are either cut down to belt courses or else done away with entirely, and large show windows in the first floor have heavy steel girders over them, expressed simply by the thickness of the reveals and the depths of the heads. These features exactly explain their construction and their purpose, and almost inevitably result in attractive and agreeable buildings.

They are not as a rule very well detailed; it is probable that the architects of most of them do not get money enough for their designs to spend very much in making good details, but because of the intelligence of our manufacturers of terra cotta and brick, who probably have made the full size details in most cases, these are by no means bad, and unless examined with care, even appear very good. American architecture, especially in its commercial structures, owes a very great debt to the manufacturers as well as to the architects, and while the development of new colors and new textures in old materials may have been begun by a few architects keenly appreciative of the value of color and texture, the wide spread knowledge of these new colors and textures is due to the fact that the manufacturers have instantly comprehended their possibilities, and have educated the architects in them, rather than because the architects have seen and understood and have insisted upon the manufacturers producing such articles. The interesting use of terra cotta in the "movie" houses and the sensible colors of the brickwork in the loft building have in most cases been suggested or developed by the manufacturers, although the designers are in most cases unconscious of this fact, and the simplicity of these two classes of buildings, together with the good color work in them, is largely responsible for their attractiveness.

THE McKinley School, E. F. Guilbert, architect, (page 101) which will occupy the property of the present city stables on Factory Street and Eighth Avenue, Newark, N. J., will vary in many respects from the usual school building. The property is very large and will admit of a building well spread out, giving ample light and air.

Being in a congested district it is desirable that the maximum amount of playground space be provided, and a plan was adopted that will permit the playground at the yard level to continue under the building; thus it will be open to the air but sheltered from the sun, rain and snow. The roof will also be constructed to permit its use as a playground.

There will be but two stories of class rooms, and the present section of the building, extending the entire length of the Factory Street frontage, will contain fourteen class rooms, an auditorium and gymnasium. The building is arranged to plan for large southern and eastern wings, thus making a U-shaped building when completed and containing in all, forty class rooms.

The present building will have two rooms provided for the open air classes. These rooms have double the usual amount of window space and are arranged so that the windows swing entirely open, and large glass canopies are provided over these openings so that the windows may be kept open in bad weather.

One room is designed on the main floor about 50% larger than the usual class room and decorated in a home character, with wainscoting, simply treated walls and a fireplace. This will be used for class purposes during school hours and will be available for community work and special evening meetings.

The auditorium is at grade level on the north end of the building with three exit doors opening directly to the street. It has a seating capacity of about six hundred with good stage and dressing rooms.

The gymnasium is large and directly over the auditorium and contains a visitors' gallery.

The usual teachers' rooms, toilets on all floors, storage rooms and other necessary elements have been included in the plan of the first section to be built.

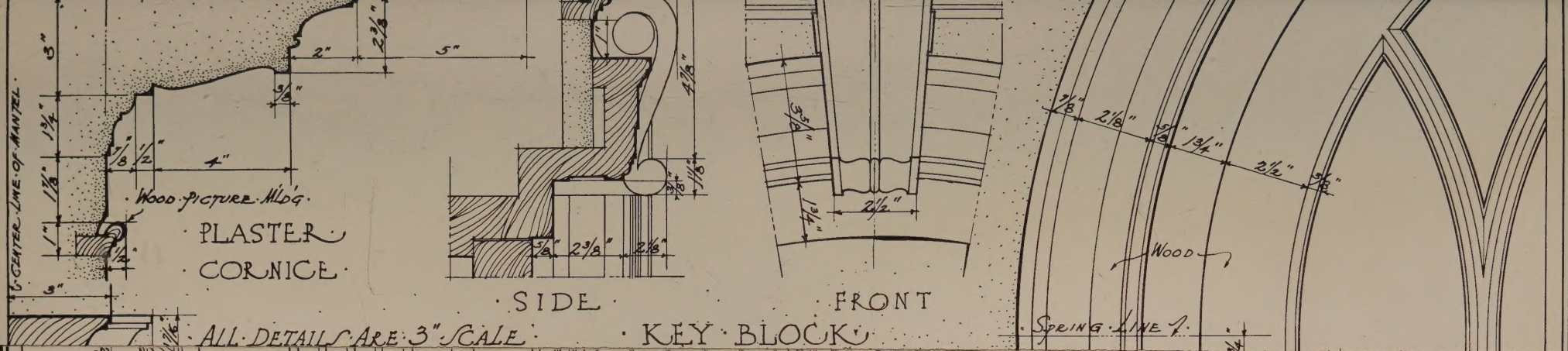
The exterior has been designed in the Italian Renaissance style, a brick building stuccoed and with windows trimmed in brown tapestry brick. Colored tiles are used in brick panels. The cornice will be in color and the building as a whole will present a very brilliant and cheerful spot in the neighborhood.

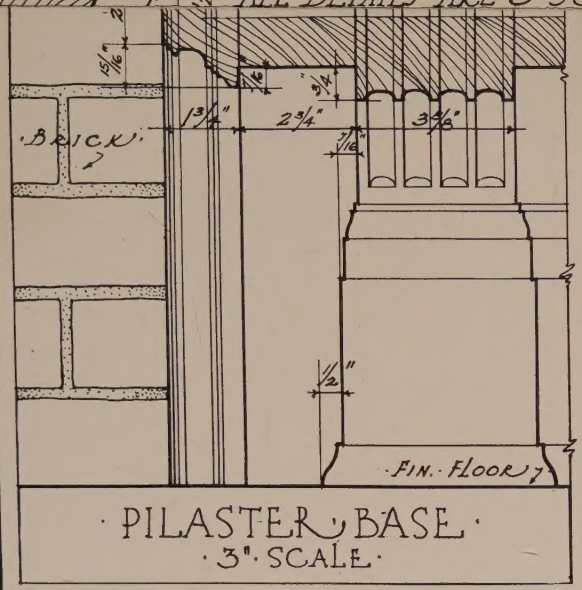
The illustration shows the completed school. It will be noticed that a small building occupies the center of the courtyard between the present and future buildings. This will be erected by the Board of Works as a gate house through which they will have access to the large water mains which extend through Eighth Avenue.

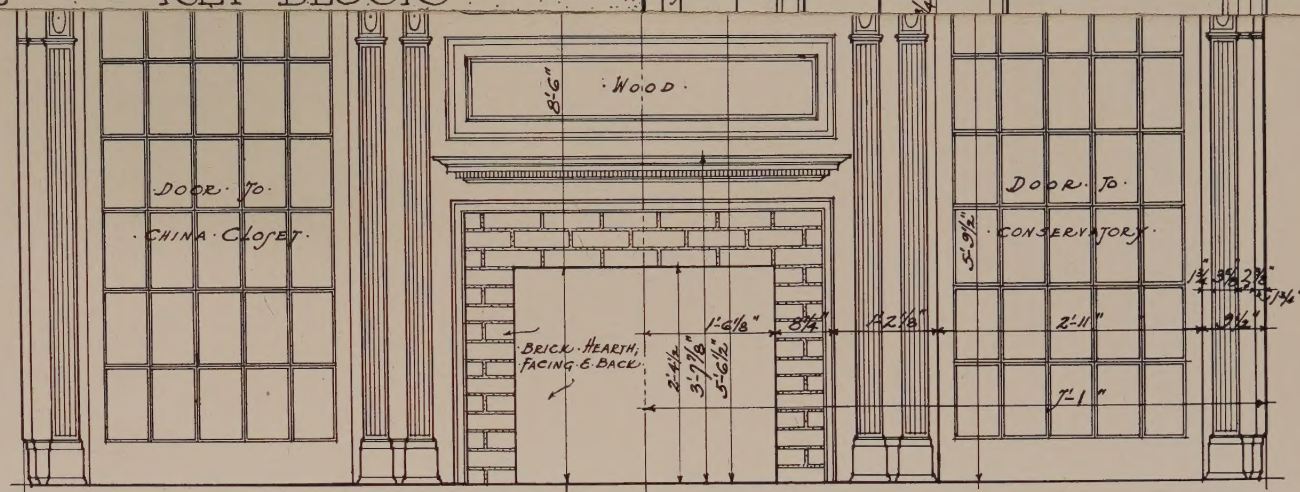
An iron fence will enclose the entire property.

It is the Board's belief that the building will meet the unique needs of the neighborhood.

THE Architectural League is to award a medal of honor for architecture annually. A special committee consisting of Edwin H. Blashfield, Isidore Konti, Calvin Kiessling and Cass Gilbert, president of the league, is working out details of the manner of awarding the medal.







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